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Operating Concept Update

NBC OAG – Oct 2004

6 Aug 04

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Progress

- Feb-Mar '04
 - MajGen Jones/LtGen Hanlon briefed on Operating Concept
 - MajGen Jones advocating OAG findings/recommendations
 - LtGen Hanlon - "This is the kind of product I expect from our OAGs".
 - LtGen Hanlon's direction
 - Jump start process with Decision Papers (in staffing).
 - Prepare MROC package to get endorsement for structure migration (en route to MROC).



Progress Operating Concept

- Mar-Sep 04
 - Operating Concept polished and staffed to Operating Force via CDTS.
 - Adjudicated over 50 pages of comments.
 - MROC Package signed by LtGen Hanlon and forwarded to MROC on 22 September.



Decision Papers

- LtGen Hanlon directed series of decision papers for rapid application of OAG recommendations.
 - Doctrine; Education, Training and Leader Development; E-NBC (Driven by MajGen Jones)
 - Began preparation in May '04.



Doctrine DP

- Actions
 - Rewrite NBC Doctrine (MCWP 3-37) by end of FY-05.
 - MCWL experiment on MOPP-drop to validate process by 1st Qtr, FY-06.



Education, Training and Leader Development DP

- Actions
 - TECOM to revise POIs for all leadership development courses to include tailored CBRN instruction by end of FY-06
 - TECOM to sustain and increase current efforts to more fully integrate NBC into all MAGTF exercises (e.g. – CAX, MSTP, etc)



CBRN Assessment and CM Capability DP

- Addresses E-NBC specifically
- Actions
 - Capability be defined in EMW Capabilities List (not limited to MEU).
 - OAG (w/TECOM assistance) decompose capability tasks and incorporate into MAGTF doctrine by end of FY-05.
 - TECOM to develop T&E package.



CBRN Assessment and CM Capability DP

- Actions (Continued)
 - E-NBC be reconfigured per OAG recommendations.
 - CE advocate approve the following discrete task for MAGTF operations and recommended that MEU(SOC) advocate (PP&O) add this task for MEU(SOC) certification:
 - “Characterize CW and TIM hazards and take appropriate measures to protect the force while conducting operations”
-



Progress Decision Papers

- Drafted May '04
 - Staffed via CDTs to advocates and TECOM
 - Comments Adjudicated
 - Restaffed for TECOM/MCWL GO approval in Aug '04
 - Will likely have to revisit the direction of the Decision Papers due to personnel turnovers.



MAGTF CBRN

Operating Concept

Deputy Commandant

Combat Development

6 August 2004

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Purpose

To Gain MROC Approval of the following:

- 1. The MAGTF CBRN Operating Concept.**
- 2. The NBC Structure Realignment Required to Support the Concept.**



Background

- Result of CE Advocate-chartered NBC OAG.
 - Three year effort.
 - Continuous Operating Force involvement.
 - Concept staffed via CDTS for validation.
 - All comments adjudicated...no non-concurs.



Overview

- The MAGTF CBRN Defense Operating Concept provides the MAGTF Commander with options for minimizing the effects of enemy NBC weapons employment through the use of operational risk management without reducing OPTEMPO.



Overview

- Concept depends on better characterizing the threat.
 - EMW focused.
 - Non-linear battlespace.
 - Consideration given to effective active defense measures.
- Applying ORM guided decisions to problem.
 - “Demythification” of CBRN in the MAGTF.
- Applying knowledge from the Agent Fate Program.
 - How agents ACTUALLY behave in the environment.
 - Applied science to unevaluated problem.



OPERATIONS IN CHEMICAL ENVIRONMENT

Unit
Contaminated:
Ops Stop

STOM

STOM

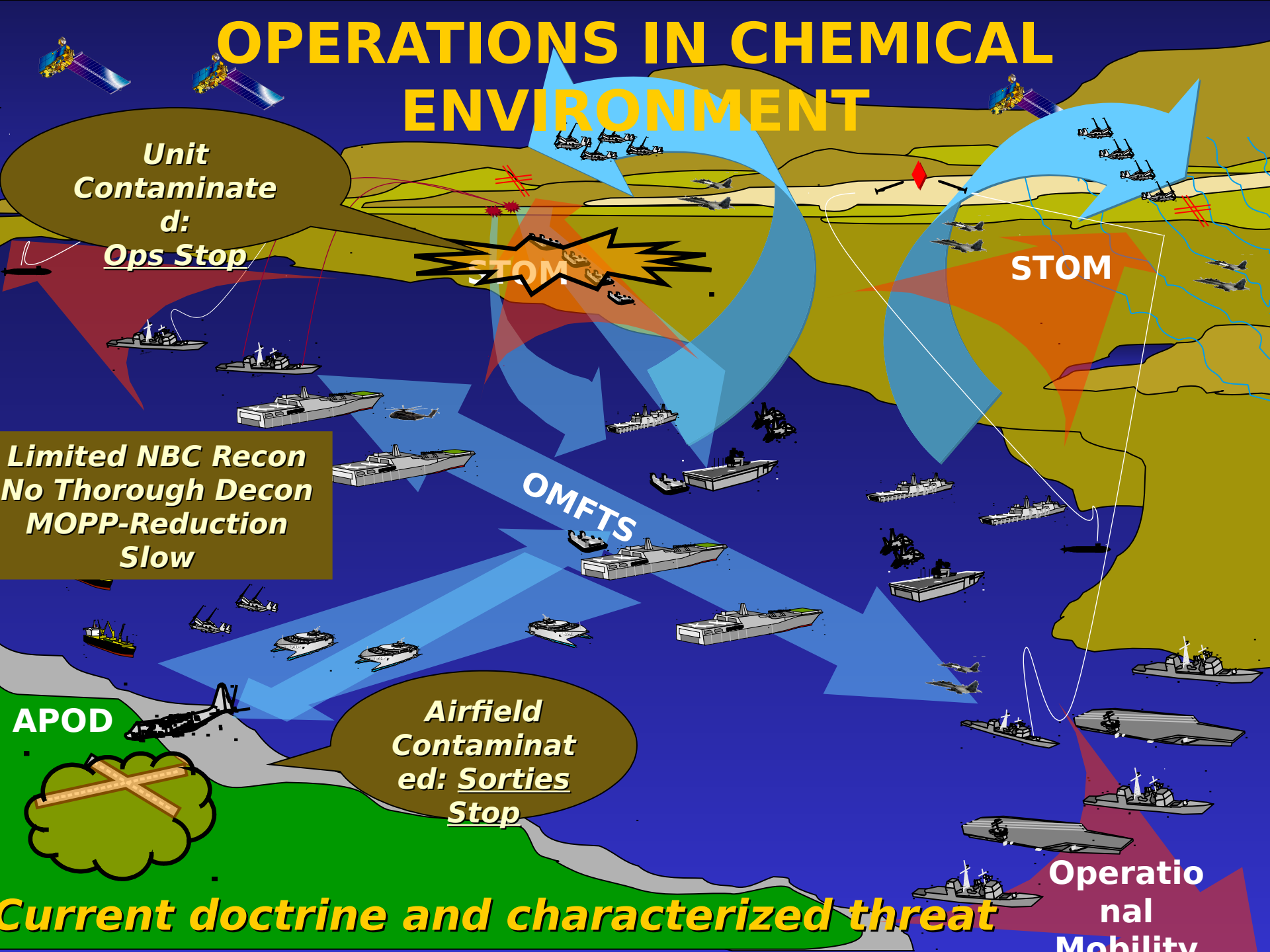
Limited NBC Recon
No Thorough Decon
MOPP-Reduction
Slow

OMFTS

Airfield
Contaminated: Sorties Stop

Operational
Mobility

Current doctrine and characterized threat



OPERATIONS IN CHEMICAL ENVIRONMENT

Unit
Contaminated:
Ops Continue

STOM

STOM

Focused Recon
Decon as needed
Quick MOPP-
Reduction

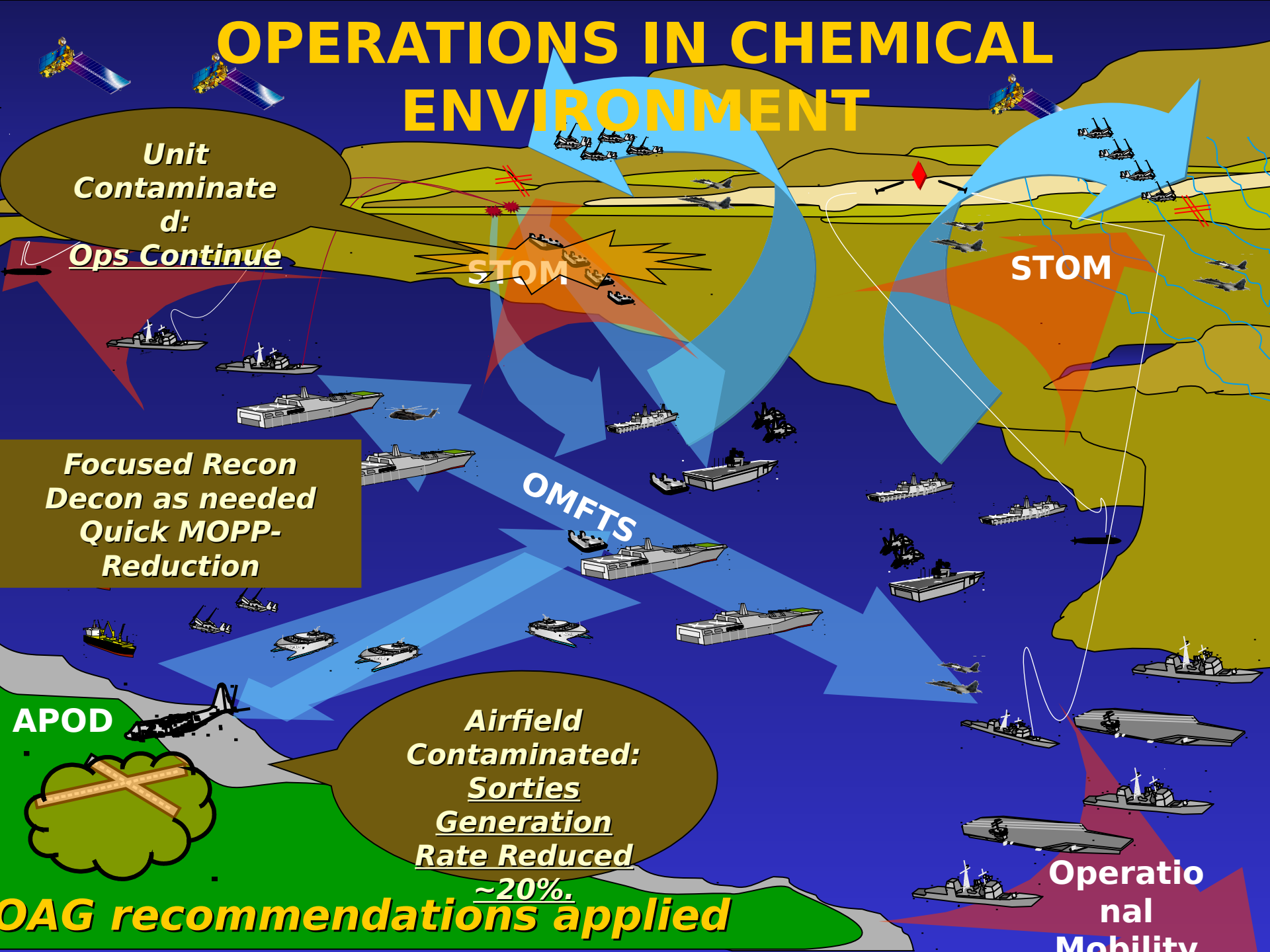
OMFTS

APOD

Airfield
Contaminated:
Sorties
Generation
Rate Reduced
~20%.

OAG recommendations applied

Operational
Mobility





Assumptions/Parameters

- Can be adopted immediately.
- If not, USMC operations in a CBRN environment will continue to be hindered by outdated scenarios, threat data, and logistically heavy TTPs impractical for use by the MAGTF.
- If education on CBRN defense continues to be a low priority item, the effort will be seriously hampered.



Course of Action

- **Approve the MAGTF CBRN Operating Concept and endorse the MAGTF NBC structure realignment required to support the concept.**
 - **Can be implemented immediately.**
 - **Structure realignment will be time phased to be completed by end of FY-06 (IOC for JSLNBCRS).**



COA Pros & Cons

- **Pros**

- **MAGTF Operations in an CBRN environment have EMW focus supportive of future USMC warfighting capabilities.**
- **Marines appropriately educated in conducting MAGTF operations in a CBRN environment.**
- **Ensures MAGTF Operations in an CBRN environment is manageable.**
- **Ensures that MAGTF CBRN capabilities are tailored appropriately throughout the MAGTF to support rapid task organization based on threat and need.**

- **Cons**

- **Requires an institutional commitment for the short-term.**
- **May induce the “rice bowl” effect from some commands.**



Implementation Strategy

- **Once approved, Operating Concept will be incorporated into USMC CBRN Doctrine and will reflect refined paradigm.**
- **Once approved, the CE Advocate will draft a campaign plan that will begin a series of advocate actions to fully implement the refined paradigm.**
- **Goal completion date for these initial actions is prior to the end of FY-06.**



Recommendations

- **The MROC approve the MAGTF CBRN Operating Concept.**
- **The MROC approve the NBC structure realignment required to support the concept.**

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BACKUPS

Joint CBRN Defense Functional Concept - Operational Attributes

- **SHAPE** - Provides the ability to characterize the CBRN hazard to the force commander - develop a clear understanding of the current and predicted CBRN situation; collect, query, and assimilate info from sensors, intelligence, medical, etc., in near real time to inform personnel, provide actual and potential impacts of CBRN hazards, envision critical SENSE, SHIELD and SUSTAIN end states (preparation for operations); visualize the sequence of events that moves the force from its current state to those end states.

- **SHIELD** - The capability to shield the force from harm caused by CBRN hazards by preventing or reducing individual and collective exposures, applying prophylaxis to prevent or mitigate negative physiological effects, and protecting critical equipment.

- **SUSTAIN** - The ability to conduct decontamination and medical actions that enable the quick restoration of combat power, maintain/recover essential functions that are free from the effects of CBRN hazards, and facilitate the return to pre-incident operational capability as soon as possible.

SENSE

- **SENSE** - The capability to continually provide the information about the CBRN situation at a time and place by detecting, identifying, and quantifying CBRN hazards in air, water, on land, on personnel, equipment or facilities. This capability includes detecting, identifying, and quantifying those CBRN hazards in all physical states (solid, liquid, gas).



Agent Fate Example

VX on Concrete

- Traditional doctrine models predict ongoing evaporation ⇒
- Liquid and vapor hazard ⇒
- MOPP-4 required (best case)
- Agent Fate science demonstrates almost no evaporation ⇒
- No liquid and negligible vapor hazard ⇒
- Mask only posture required (worst case)

Problem: Current Operator Directives are Inconsistent

Concrete/Asphalt		FM 3-4		FM 3-3/ FM 3-7		F-M 3-9	
	Temp	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor
GD	10-30°C	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail
HD	10-30°C	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail
VX	10-30°C	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail

Sand		FM 3-4		FM 3-3/ FM 3-7		F-M 3-9	
	Temp	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor
GD	10-30°C	Not Avail	18 - 60+	Not Avail	11-44	Not Avail	5 - 48
HD	10-30°C	Not Avail	60+	Not Avail	3 - 12	Not Avail	6 - 168
VX	10-30°C	Not Avail	45 - 60+	Not Avail	1085 -7992	Not Avail	1800 -3600

Grass		FM 3-4		FM 3-3/ FM 3-7		F-M 3-9	
	Temp	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor
GD	10-30°C	Not Avail	7 - 20+	Not Avail	4-17	Not Avail	5 - 48
HD	10-30°C	Not Avail	20+	Not Avail	1 - 5	Not Avail	6 - 168
VX	10-30°C	Not Avail	18 - 20+	Not Avail	422 -3108	Not Avail	1800 -3600

The Hazard Durations Predicted In the Field Manuals Are Grossly Inaccurate



Thorough Decon Example

-Current Doctrine/TTPs-

- Huge Logistical Burden.
- To support/sustain decon for eight hours (at 70°F).
 - 348 people (requirement goes up with the temperature).
 - 8 QUADCONs worth of equipment.
 - 23,000 gallons of water.
 - 420 gallons of fuel.
- Payoff for this effort is minimal.
 - 35-40 vehicles decontaminated.
 - 300 persons/90 casualties decontaminated.



An Illustration

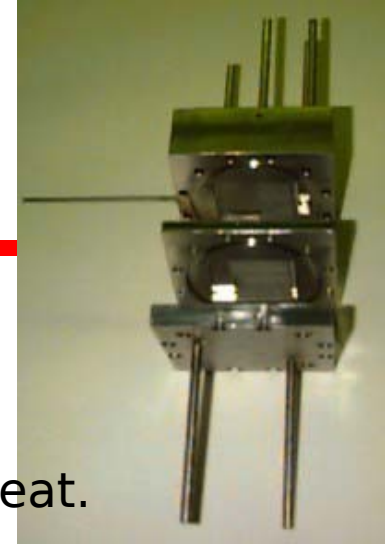
Global War On Terrorism (GWOT)



GWOT Example

- Current TTPs -

- VBSS Scenario
 - Target package doesn't highlight any CBRN Threat.
 - Marines execute with no mask (worst case).
- During execution, do Marines recognize indicators of terrorist chemical production?
 - Chemical Reactor, Potassium Cyanide tablets
 - Hydrofluoric Acid, broken containers with unidentified liquid
- How do Marines react to this threat? Do they perceive a threat?
- This scenario reflects lack of focus of CBRN on appropriate training/education

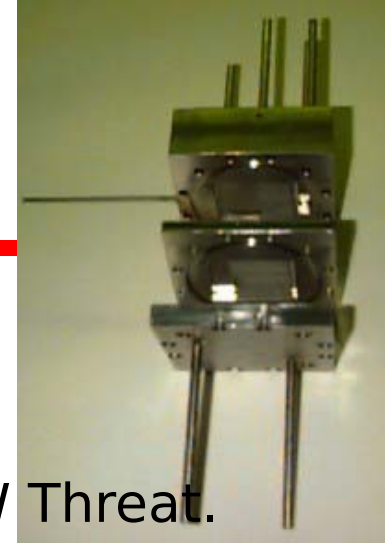




GWOT Example

- OAG Recommendations Applied -

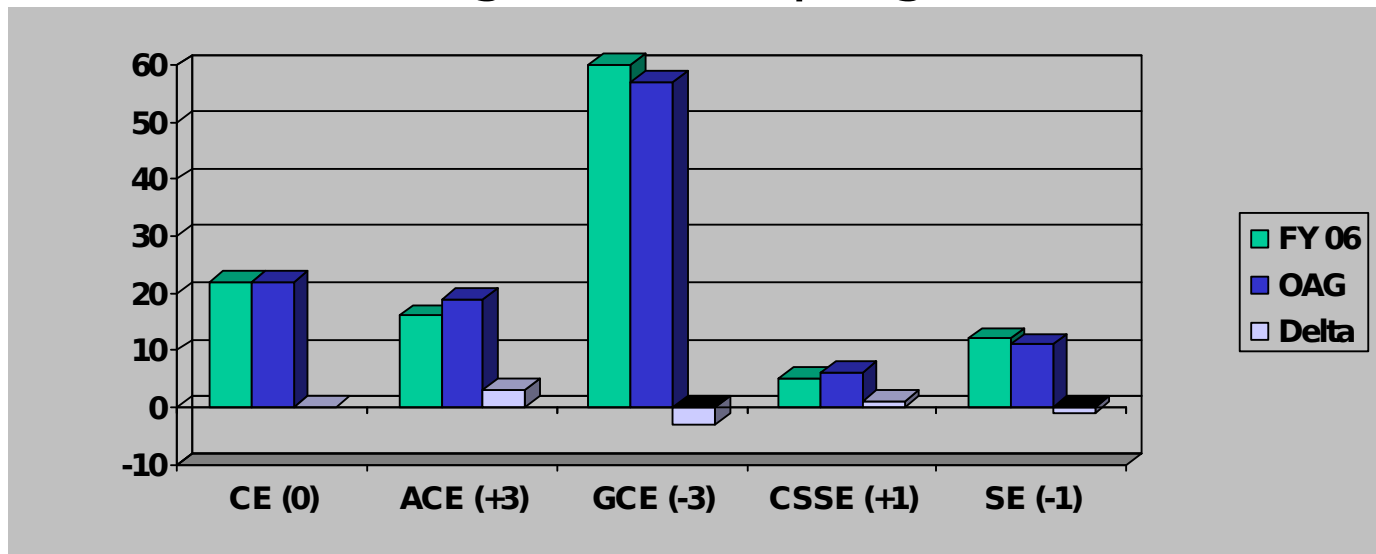
- VBSS Scenario
 - Target package doesn't highlight any CBW Threat.
 - Marines execute with mask, appropriate IPE.
- During execution, Marines recognize indicators of terrorist chemical production.
 - Chemical Reactor, Potassium Cyanide tablets.
 - Hydrofluoric Acid, broken containers with unidentified liquid.
- Marines evacuate confined space, take personal protective actions.
- Secure area and preserve site.





Structure Overview

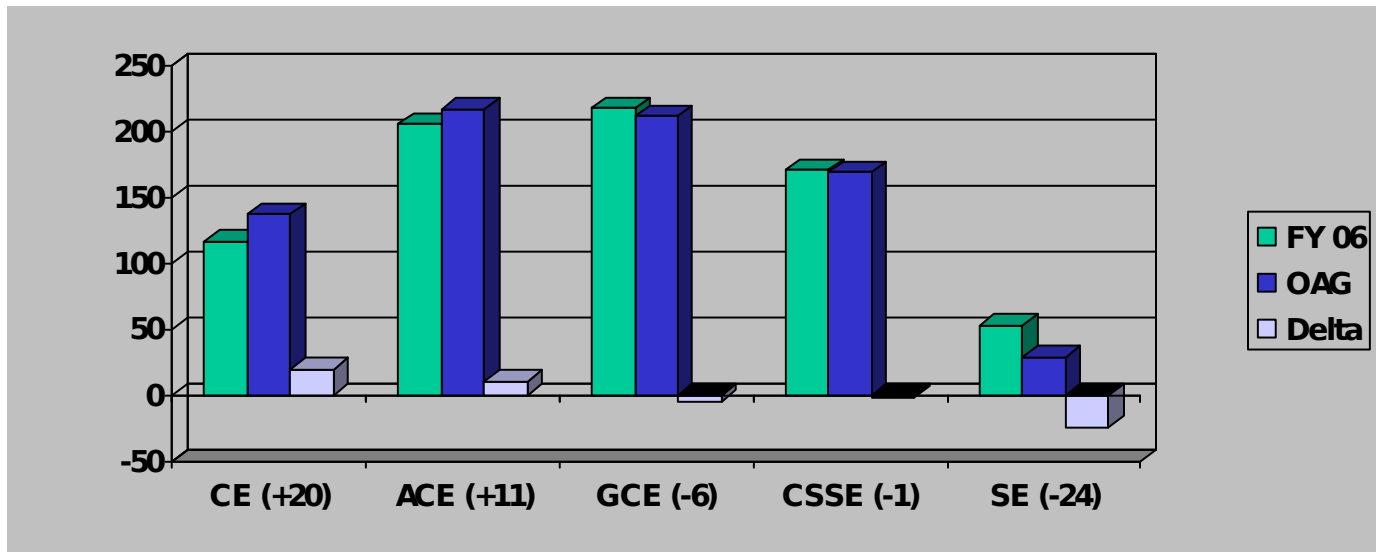
- Structure Realignment - 5702
 - No additional structure required
 - Required to properly support the MAGTF
 - Maintains grade-shaping





Structure Overview

- Structure Realignment - 5711
 - No additional structure required
 - Required to properly support the MAGTF
 - Maintains grade-shaping



GCE Structure

- OAG Cut -

	Officer			Enlisted		
	FY-06	OAG	Change	FY-06	OAG	Change
Div HQ	3	6	+3	69	65	-4
HQ Bn	2	0	-2	3	6	+3
Inf Regt	8	8	0	16	8	-8
Arty Regt	3	3	0	6	3	-3
Inf Bn	24	24	0	48	48	+2
Arty Btry	10	10	0	20	10	-10
LAR Bn/CAB	4	4	0	37	60	+23
AABn	2	0	-2	4	4	0
Tank Bn	2	2	0	4	2	-2
Recon Bn	0	0	0	6	3	-3
CEB	2	0	-2	4	2	-2
Totals	60	57	-3	217	211	-6



CE Structure Details

- Migration used primarily to man JSLNBCRS vehicles (IOC: FY-06/07).
- Regts lose Cpls/LCpls, but gain GySgts vice SSgts/Sgts as Chiefs.
- Arty Btrys lose Cpls, but gain Sgts vice Cpls as Chiefs.
- Bottom Line: Puts structure where we need it/when we need it.
- Easily task organized to support mission requirements.



ACE Structure

- OAG Cut -

	Officer			Enlisted		
	FY-06	OAG	Change	FY-06	OAG	Change
Wing HQ	3	6	+3	21	12	-9
MWSG	3	3	0	3	85	+82
MAG	10	10	0	83	73	-10
MWHS	0	0	0	3	3	0
MACG	0	0	0	3	3	0
MTACS	0	0	0	3	3	0
MACS	0	0	0	7	3	-4
MWCS	0	0	0	3	3	0
MASS	0	0	0	3	3	0
LAAD	0	0	0	5	5	0
MWSS	0	0	0	60	20	-40
HMX-1	0	0	0	3	3	0
Trng Sqdns	0	0	0	8	0	-8
Totals	16	19	+3	205	216	+11



ACE Structure Details

- Migration used primarily to man JSLNBCRS vehicles (IOC: FY-06/07).
- Bottom Line: Puts structure where we need it/when we need it.
- Easily task organized to support mission requirements.

CE Structure

- OAG Cut -

	Officer			Enlisted		
	FY-06	OAG	Change	FY-06	OAG	Change
MEU HQ	7	7	0	7	14	+7
MEF HQ	3	5	+2	3	6	+3
MarFor HQ	4	4	0	1	4	+3
4 th MEB(AT)	1	1	0	3	3	0
1/9 (AT Bn)	1	1	0	3	2	-1
MSG Bn	1	0	-1	1	2	+1
MCSF Bn	1	0	-1	6	6	0
SPMAGTF(X)	1	1	0	0	0	0
CBIRF	3	3	0	74	74	0
MHG	0	0	0	4	6	+2
Force Recon	0	0	0	2	3	+1
RadBn	0	0	0	3	3	0
Comm Bn	0	0	0	6	6	0
H&S Bn MARFOR	0	0	0	1	2	+1
Intel Bn	0	0	0	0	3	+3
ANGLICO	0	0	0	3	3	0
Totals	22	22	0	117	137	+20



CE Structure Details

- Reinforces understaffed HQ Elements, which were typically comprised of 1 CWO/1 SNCO.
 - MEUs, MEFs, & MarFors.
- Bottom Line: Puts structure where we need it/when we need it.
- Easily task organized to support mission requirements.



CSSE Structure

- OAG Cut -

	Officer			Enlisted		
	FY-06	OAG	Change	FY-06	OAG	Change
FSSG HQ	5	6	+1	115	126	+11
Maint Bn	0	0	0	3	6	+3
Supp Bn	0	0	0	11	6	-5
ESB	0	0	0	5	6	+1
TSB	0	0	0	10	6	-4
Med/Den Bn	0	0	0	9	6	-3
MSSG	0	0	0	7	7	0
CSSG-1	0	0	0	2	2	0
CSSD-36	0	0	0	2	2	0
CSSG-3	0	0	0	6	2	-4
Totals	5	6	+1	170	169	-1



CSSE Structure Details

- Migration used primarily to man JSLNBCRS vehicles (IOC: FY-06/07).
- Bottom Line: Puts structure where we need it/when we need it.
- Easily task organized to support mission requirements.

SE Structure (Officer)

- OAG Cut -



	FY-06	OAG	Change
DTRA	1	1	0
PFPA	1	1	0
Jt Forces HS	1	0	-1
MCSC	1	1	0
DSWA	1	0	-1
NBC School	1	1	0
PP&O	1	1	0
NBC EAU*	2	2	0
MCCDC	1	2	+1
TECOM	2	2	0
Totals	12	11	-1

***Transition to GS-12**

SE Structure (Enlisted)



- OAG Cut -

	FY-06	OAG	Change
PFPA	2	2	0
MCSC	3	3	0
MarDet RSA	1	1	0
NBC School	7	12	+5
MCI	1	0	-1
Dam Neck	2	2	0
NBC EAU*	9	3	-6
Barstow	3	0	-3
Blount Island	1	1	0

	FY-06	OAG	Change
WTBn	3	2	-1
H&S Bn, Quan	1	0	-1
MCCDC	1	1	0
Sec Bn, Quan	1	0	-1
TBS	2	1	-1
MCEngSch	1	0	-1
MWTC	1	1	0
MCBases & Stations*	14	0	-14
Totals	53	28	-25

***Transition to
GS**



SE Structure Details

- Migration used primarily to man JSLNBCRS vehicles in Operating Force (IOC: FY-06/07).
- Base/Station Organizations will be better served by Civilians filling a consequence management role.
 - NBC Specialists not trained in Incident Command System Operations.
 - NBC Specialists not properly trained for civil consequence management operations.
 - Provides more continuity for billets that, in consequence management activities, must interact closely with local agencies/governments.
 - Consistent with other Services' approach.
- Bottom Line: Puts structure where we need it/when we need it.